

## Assignment 01

Code the following in MATLAB

The Yahoo Finance API can be used to returns stock price data for a given symbol. In this example, YHOO daily price from 4/13/2009 to 1/28/2010 is requested.

<http://ichart.finance.yahoo.com/table.csv?s=YHOO&d=0&e=28&f=2010&g=d&a=3&b=13&c=2009&ignore=.csv>

The details of the parameters are as follows:

|   |                                      |
|---|--------------------------------------|
| s | Ticker symbol (YHOO in the example)  |
| a | The "from month"• - 1                |
| b | The "from day"• (two digits)         |
| c | The "from year"•                     |
| d | The "to month"• - 1                  |
| e | The "to day"• (two digits)           |
| f | The "to year"•                       |
| g | d for day, m for month, y for yearly |

|    | A         | B     | C     | D     | E     | F        | G         |
|----|-----------|-------|-------|-------|-------|----------|-----------|
| 1  | Date      | Open  | High  | Low   | Close | Volume   | Adj Close |
| 2  | 1/28/2010 | 15.93 | 15.96 | 15.44 | 15.44 | 30159500 | 15.44     |
| 3  | 1/27/2010 | 16.46 | 16.49 | 15.77 | 15.98 | 41701000 | 15.98     |
| 4  | 1/26/2010 | 15.82 | 16.17 | 15.7  | 15.99 | 43979400 | 15.99     |
| 5  | 1/25/2010 | 16.07 | 16.11 | 15.74 | 15.86 | 19683700 | 15.86     |
| 6  | 1/22/2010 | 16.08 | 16.21 | 15.81 | 15.88 | 25132800 | 15.88     |
| 7  | 1/21/2010 | 16.39 | 16.58 | 16.1  | 16.2  | 21858400 | 16.2      |
| 8  | 1/20/2010 | 16.65 | 16.68 | 16.25 | 16.38 | 14419500 | 16.38     |
| 9  | 1/19/2010 | 16.78 | 16.96 | 16.64 | 16.75 | 15182600 | 16.75     |
| 10 | 1/15/2010 | 17.25 | 17.25 | 16.75 | 16.82 | 18415000 | 16.82     |
| 11 | 1/14/2010 | 16.81 | 17.23 | 16.8  | 17.12 | 16715600 | 17.12     |

(4 points) Write a function that reads an Excel file for a number of stock symbols, then for each symbol the function

- (1 point) sends requests to Yahoo Finance API repeatedly, retrieves the response and stores the response in a variable
- (2 point) gets the Adjusted Closing Price column
- (1 point) stores the Adjusted Closing Price as a column (without the header) in the output variable

The function takes the API parameters above as the input variables (except “s”). For N symbols, there should be N columns in the output variable.

(1 point) Write sample code that calls the function above, return data into a variable, save the data to an Excel file.

**Hint:** You can use MATLAB function `urlread()` to read the response and store the result in a variable as follows:

```
x=urlread('http://ichart.finance.yahoo.com/table.csv?s=YHOO&d=0&e=28&f=2010&g=d&a=3&b=13&c=2009&ignore=.csv')
```

To split rows, use this syntax

```
data=strsplit(x, '\n');
```

For each row, in order to split it into multiple columns

```
arow=strsplit(sprintf('%s',row{:}),',')
```

in which the variable “row” is an element in the cell array “data”. “arrow” is a cell array

***Submission includes code, all the Excel files, and a document explaining your work.***